

24. A NEW REPORT OF *HORABAGRUS BRACHYSOMA* JAYARAM,
FAMILY BAGRIDAE IN UTTARA KANNADA DISTRICT, KARNATAKA

(With one text-figure)

The catfish *Horabagrus brachysoma* Jayaram, Family Bagridae, has been reported in the Kerala Western Ghats. It was first described as *Pseudobagrus brachysoma* by Gunther in 1864, and by Day in 1865 (*Proc. zool. Soc. Lond.* p. 290, Malabar, ii, p. 185, pl. xiii, fig. 2), from Cochin as *Pseudobagrus chryseus*. In later publications, Day (1889) refers to it as *Macrones chryseus*. The species of the genus *Macrones* are identical to the Indian species of *Mystus*. They are characterised by the presence of 15 or less anal fin rays, eyes placed much above the angle of the mouth (invisible from the ventral surface), barbels longer than head, the pelvic fin far from the anal fin, and a moderately long adipose fin. On the other hand, *M. chryseus* is characterised by the presence of an anal fin with 26-28 rays, the eyes being placed in line with the angle of the mouth so that it is visible from the ventral surface, the barbels not extending beyond the head and the pelvic fin reaching the anal fin.

Because of these anomalies, *M. chryseus* was separated from the *Mystus* group and for some time, it was placed in the genus *Pseudobagrus* as *P. brachysoma* (Jayaram 1952). *P. brachysoma* is the only species of the genus from the Indian subcontinent, while the other species of the genus are Chinese. A comparison of specimens of *P. brachysoma* with other specimens of *Pseudobagrus* showed that they are not congeneric, so *P. brachysoma* was given a new generic rank and named as *Horabagrus* (Jayaram 1955).

The species *Horabagrus brachysoma* has a moderately elongated, compressed body with a large head and a wide subterminal mouth. The eyes are large, inferior and visible from the ventral side. The dorsal fin, consisting of the

rayed fin with 5-7 rays, possesses a hard spine and is separated from the softer smaller adipose dorsal fin. It also has four pairs of barbels: one nasal, two mandibular and one maxillary. (Jayaram 1981)

This species has, till date, been reported from Neyyatinkara backwaters (near Trivandrum), its southernmost limit, to regions near the Karnataka border, the northernmost limit.

Field surveys were conducted in the river systems of Uttara Kannada district, located in northern Karnataka. Uttara Kannada (13° 52' to 15° 30' N and 74° 5' E), forms part of the northern extent of the Western Ghats (Fig. 1). This region has many perennial and temporary streams and rivers. The fish diversity of the four main west flowing rivers, Sharavati, Aghanashini, Bedti and Kali, were studied. Collections were made using gill nets, cast nets and drag nets. Samples were collected from six sites in each of these four rivers from January 1997 to January 1999.

During a recent survey, fresh samples of *Horabagrus brachysoma* have been collected at the rivers Kali and Aghanashini near the downstream reaches of these river systems. The species (*H. brachysoma*) in the River Kali was first recorded at Kadra (74° 20' E, 14° 53' N, about 100 m above msl). The habitat at this site consists of smooth flowing runs, the riparian vegetation here is mostly composed of long stands of bamboo and species of *Terminalia*. The site at Kadra is very close to the Kaiga Dam Project and forms part of the reservoir. As a result, the water here is regulated. Local villagers revealed that the species is found in this region, but is rarer than other Bagrids. The first collections were made in March 1998. In April 1998, we

Horabagrus, listed as endangered, has been recorded earlier only in Kerala. This report on the presence of *Horabagrus brachysoma* in Uttara Kannada is important since it extends the known geographical range from Kerala to regions much further northwards along the Western Ghats. Though it has not yet been reported from southern Karnataka, our findings suggest the possible occurrence of the species all along the hill streams of the Western Ghats.

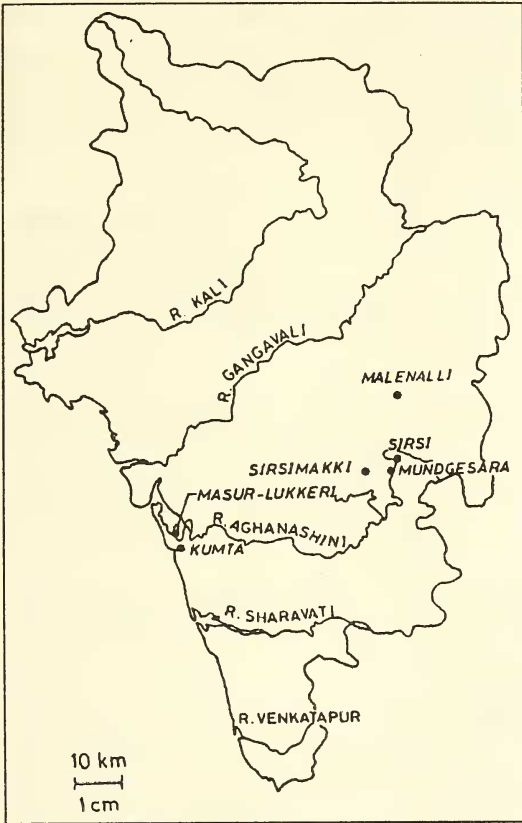


Fig. 1: Map of the study area, Uttara Kannada District, Karnataka

collected one more specimen from the downstream reaches of the river Aghanashini at Hulidevarakodlu (74° 40' E, 14° 24' N, about 500 m above msl). The River Aghanashini is subjected to much less human disturbance than the River Kali. The study area near Hulidevarakodlu is pristine, with thick evergreen forests of *Terminalia*, *Eugenia hynneana*, *Callophyllum* spp., *Mangifera indica*, and *Pongamia* forming the riparian vegetation.

Two more specimens were collected in January 1999, one at the same site on the River Kali (at Kadra) and one at Kirtigadde (74° 36.5' E, 14° 26' N, about 500 m above msl), 1 km downstream of Hulidevarakodlu. The morphometric details of the specimens are given in Table 1.

TABLE I
MORPHOMETRIC DETAILS OF
THE SPECIMENS (IN CM)

Parameter measured	Specimen from Kadra	Specimen from Kirtigadde	Specimen from Kadra
Total length	14.4	19.9	21.2
Standard length	11.8	16.2	17.4
Head length	3.2	4.2	4.8
Body depth	3.1	4.5	5.2
Length of snout	1.2	1.9	2.1
Eye diameter	0.65	0.9	1.0
Interorbital distance	1.8	2.6	3.0
Length of barbel:			
nasal barbel	1.6	2.1	2.3
maxillary barbel	2.1	2.8	2.4
outer			
mandibular barbel	2.2	25	2.6
inner mandibular barbel	1.2	1.7	1.8
Predorsal distance	4.2	6.4	6.5
Postdorsal distance	7.8	9.5	11.2
Distance from pectoral fin base to pelvic fin base	3.9	4.2	4.5
Distance from pelvic fin base to anal fin base	1.0	1.4	11.4
Length of caudal peduncle	1.6	2.3	2.2
Height of caudal peduncle	1.3	1.9	2.0
Height of dorsal fin	1.8	3.6	3.7
Length of pectoral fin	2.5	3.1	3.6
Length of pelvic fin	1.5	2.1	2.2
Length of anal fin	2.8	4.1	4.6

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25. RANGE EXTENSION OF *MYSTUS BLEEKERI* (DAY) TO THE FRESH WATERS OF TAMIL NADU AND NOTES ON ITS CONGENERS IN TAMIL NADU AND SRI LANKA

Day (1875-78) named the specimens from River Hooghly, Calcutta *Macrones bleekeri* (now *Mystus bleekeri*) which Bleeker in 1853 had identified as belonging to the species *keletius* (Valenciennes, 1839: type locality - Pondicherry). Though both the species bear lateral stripes on the body, they differ in several characters. In *bleekeri*, the occipital process is twice as long as broad and reaches the basal bone of dorsal; adipose dorsal base is long, commencing just behind last dorsal ray, its base being 2.4 times the rayed dorsal; maxillary barbels are long, reaching the anal fin, whereas in the latter, the occipital process is narrow, being 3 times as long as broad at the base and does not reach the basal bone of dorsal; adipose dorsal base is shorter being 1.1 times the rayed dorsal base, with wide interdorsal space; maxillary barbels are shorter, reaching only the middle of pelvic fin (Day, op. cit.; Misra 1976). *M. bleekeri* (Fig. 1) also differs from the widely distributed striped catfish *vittatus* (Bloch 1797) by its longer adipose dorsal and less number of

gill-rakers on the lower arm, 9-11 vs. 22-27 (Sharma and Dutt 1983).

The distribution of *bleekeri* is stated to be north India, with Mahanadi as its southern limit (Menon 1999; Jayaram 1999). However, Sharma and Dutt (op. cit.), reported it from peninsular India (Andhra Pradesh: Guntur). Recently, the species was reported from Neyyar river in Thiruvananthapuram district, Kerala by Raju *et al.* (1999), and Ponmudi, also in the same district (Cherian *et al.*, in press).

This report is based on collections made during paddy field ecosystem studies by the third author. Ten specimens ranging in length from 59 to 122 mm SL were collected during May-October 1999, from Singaperumal Koil paddy field in Chengleput district. This extends its distributional range to Tamil Nadu.

Jayaram (op. cit.) listed 19 species of *Mystus* from the Indian subcontinent, of which, with the recent inclusion of *microphthalmus* (Day) from Manipur, 14 species are represented in Indian territory. With the exception of this